



Illinois Department of Transportation

Memorandum

To: ALL BRIDGE DESIGNERS 02.4

From: Ralph E. Anderson

Subject: F Shape Parapet *Ralph E. Anderson*

Date: December 2, 2002

In July the Department introduced the F shape barrier as a temporary concrete barrier. The new 2002 Bridge Manual includes a revised version of base sheet R-27 (Temporary Concrete Barrier) which incorporates details for the F shape barrier.

The Department is now implementing F shape barriers for all permanent barrier applications. The F shape barrier, similar to the New Jersey barrier, has been crash tested to Performance Level PL-2 (TL-4) however, the overall performance of the F shape barrier is better than the New Jersey barrier. Beginning with the March 2003 letting, the Bridge Office Final Plan and Control Unit will insert a special provision on contract plans detailed with New Jersey parapets. The special provision will require the contractor to use an F shape parapet in lieu of the New Jersey parapet shown. This includes all applications: parapets on bridge decks; parapets on parallel wing walls of abutments; or parapets on retaining walls. All necessary dimensional changes for the F shape parapet and the parapet reinforcement will be included for both conventional cast-in-place and slip form installations. To bring this to the attention of the contractor and to serve notice for the as-built plans the following "boxed-in" note will be placed in the General Notes of the bridge contract plans.

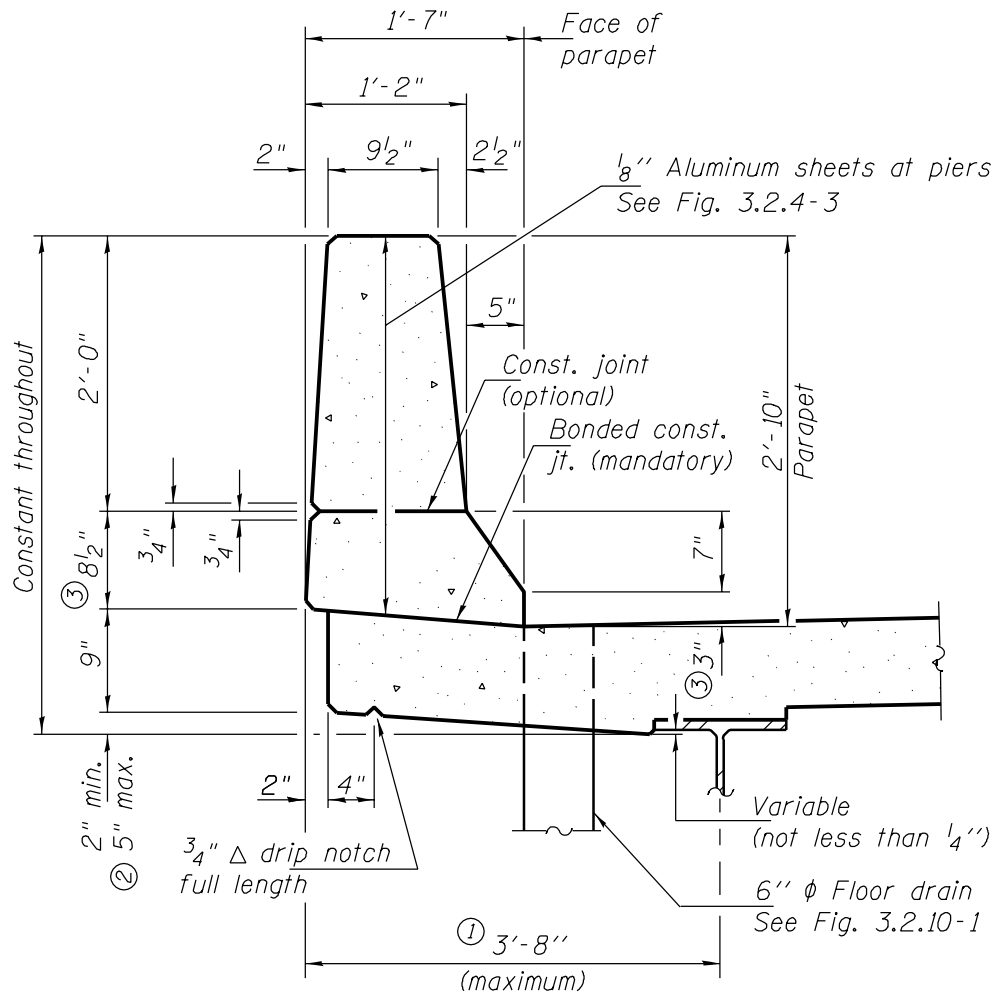
The contractor shall construct the parapets according to the F shape parapet detailed in the special provisions in lieu of the New Jersey parapet detailed in the contract plans.

This memorandum includes all dimensional details and parapet reinforcement for the F shape parapet. Designers are encouraged to make these revisions to their projects beginning with the March 7, 2003 letting. However, all projects beginning with the November 7, 2003 letting will be required to detail the F shape parapet in the contract plans in lieu of the New Jersey parapet. The special provision and note described above will only be necessary on projects detailed with the New Jersey parapet.

Certain projects on the March 2003 letting through the September 2003 letting may have specified a DS-22 or DS-23 scupper. These scuppers do not fit with the F shape barrier. Designers on these projects should contact the Bridge Office for guidance.

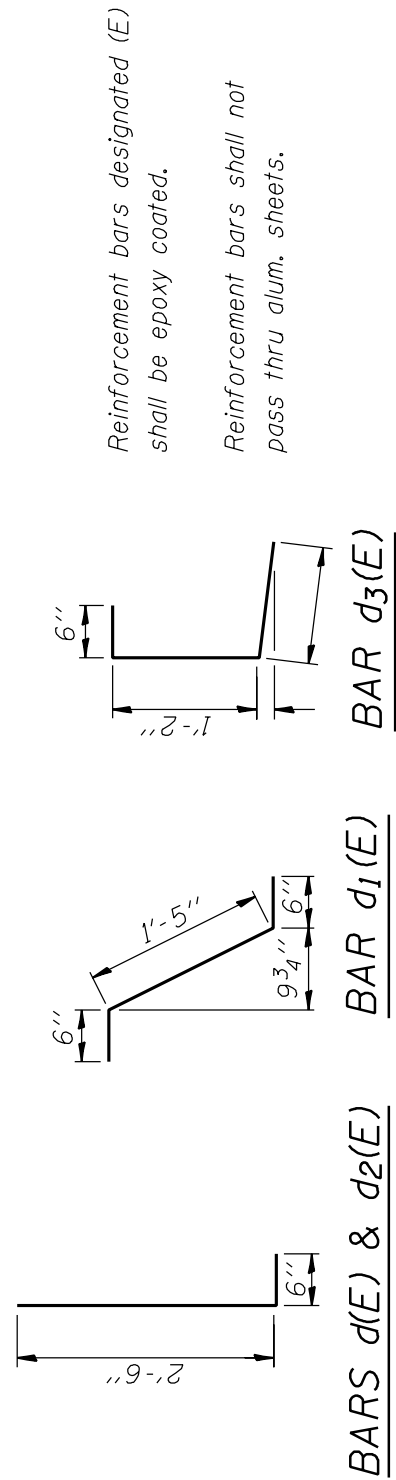
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Notes: All edges shall have $\frac{3}{4}$ " chamfer.



- ① When superstructure is curved and stringers are straight, the minimum allowable overhang is 1'-3". Actual maximum and minimum dimensions are to be shown on plans. See Prestressed Concrete Manual for limitations with Bulb-T's.
- ② When more than 5" is required add excess to 9" dimension.
- ③ Add 2" when initial Waterproofing Membrane System and Wearing Surface is used.

**F SHAPE
CONCRETE PARAPET
CONFIGURATION**



Revised Figure 3.2.4-2